WHAT IS CLAIMED IS:

1. An osteogenic treatment device, comprising:

nucleic acid containing a base sequence coding for bone morphogenetic protein (BMP) and a base sequence derived from an expression plasmid;

an angiogenesis factor;

a non-viral vector for holding the nucleic acid; and

a biocompatible base body;

wherein the angiogenesis factor is mixed with the nucleic acid, in which the mixing ratio between the angiogenesis factor and the nucleic acid is in the range of about 10:1 to 1:100 by weight.

2. The osteogenic treatment device as claimed in claim 1, wherein the base body is constructed from a porous block body having interconnecting holes in which the adjacent holes communicate to each other.

3. The osteogenic treatment device as claimed in claim 2, wherein in a case where the area (average) of boundary parts between the holes adjacent to each other in the base body is defined as A (μm^2) and the maximum cross-sectional area (average) of the holes is defined as B (μm^2), the value of B/A is in the range of 2 to 150.

4. The osteogenic treatment device as claimed in claim 2 or 3, wherein the maximum cross-sectional area (average) B of the holes is in the range of about 7.9×10^3 to 1.1×10^6 μm^2.

5. The osteogenic treatment device as claimed in any one of claims 2 to 4, wherein the porosity of the base body is in the range of 30 to 95%.

6. The osteogenic treatment device as claimed in any one of claims 1 to 6, wherein the angiogenesis factor is at least one selected from the group comprising basic Fibroblast Growth Factor (bFGF), Vascular Endothelial Growth Factor (VEGF) and Hepatocyte Growth Factor (HGF).

7. The osteogenic treatment device as claimed in any one of claims 1 to 6, wherein the bone morphogenetic protein (BMP) is at least one selected from the group comprising BMP-2, BMP-4 and BMP-7.

8. The osteogenic treatment device as claimed in any one of claims 1 to 7, wherein the amount of the nucleic acid to be used is in the range of about 1 to 100 μg per 1 mL of the base body.

9. The osteogenic treatment device as claimed in any one of

claims 1 to 8, wherein the non-viral vector includes a liposome.

10. The osteogenic treatment device as claimed in claim 9, wherein the liposome is a cationic liposome.

11. The osteogenic treatment device as claimed in any one of claims 1 to 10, wherein the mixing ratio between the non-viral vector and the nucleic acid is in the range of 1:1 to 20:1 by weight.

12. The osteogenic treatment device as claimed in claim 1, wherein the base body is formed into a block body.

13. The osteogenic treatment device as claimed in claim 1, wherein the base body is porous.

14. The osteogenic treatment device as claimed in claim 13, wherein the porosity of the base body is in the range of 30 to 95%.

15. The osteogenic treatment device as claimed in any one of claims 1 to 14, wherein the base body is mainly formed of hydroxyapatite or tricalcium phosphate.